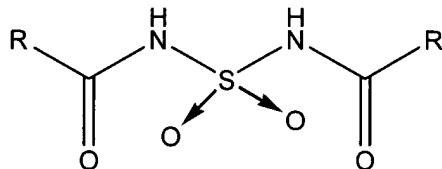


CLAIMS

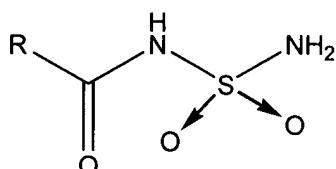
We claim:

- 1 1. Chemical compounds which when reacted with a source of peroxide such as
2 hydrogen peroxide, sodium perborate, or sodium percarbonate will produce
3 peroxy acids such as peroxypropionic acid (PPA) that can be used in various
4 formulations including antimicrobial composition.
- 1 2. Structures under Claim 1 that include chemical structures as defined by the
2 following schematic.



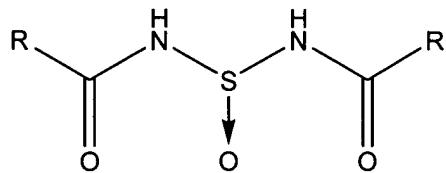
- 3
- 4 R= C1 to C20 alkyl or aryl chain or mixed aryl and alkyl chain.

- 1 3. Structures under Claim 1 that include chemical structures as defined by the
2 following schematic.



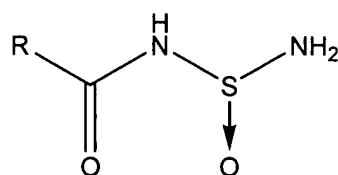
- 3
- 4 R= C1 to C20 alkyl or aryl chain or mixed aryl and alkyl chain.

- 1 4. Structures under Claim 1 that include chemical structures as defined by the
2 following schematic.



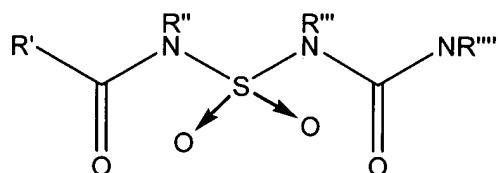
4 R= C1 to C20 alkyl or aryl chain or mixed aryl and alkyl chain.

1 5. Structures under Claim 1 that include chemical structures as defined by the
2 following schematic.



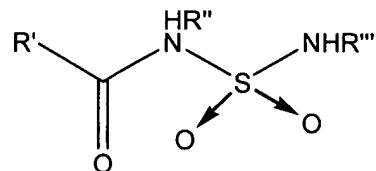
4 R= C1 to C20 alkyl or aryl chain or mixed aryl and alkyl chain.

1 6. Structures under Claim 1 that include chemical structures as defined by the
2 following schematic.



4 R' = C1 to C20 alkyl or aryl chain or mixed aryl and alkyl chain
5 R'' = H or C1 to C20 alkyl or aryl chain or mixed aryl and alkyl chain
6 R''' = H or C1 to C20 alkyl or aryl chain or mixed aryl and alkyl chain
7 R'''' = C1 to C20 alkyl or aryl chain or mixed aryl and alkyl chain
8 R', R'', R''', and R'''' may also contain heteroatoms

1 7. Structures under Claim 1 that include chemical structures as defined by the
2 following schematic.



3

4 R' = C1 to C20 alkyl or aryl chain or mixed aryl and alkyl chain
 5 R'' = H or C1 to C20 alkyl or aryl chain or mixed aryl and alkyl chain
 6 R''' = H or C1 to C20 alkyl or aryl chain or mixed aryl and alkyl chain
 7 R'''' = C1 to C20 alkyl or aryl chain or mixed aryl and alkyl chain
 8 R', R'', R''', and R'''' may also contain heteroatoms

1 8. Compositions either in solution with various solvents including water, in gel,
 2 cream, lotion or suspension with various commonly available excipients and a
 3 source of peroxide utilizing the structures as described in claims 1, 2, 3, 4, 5, 6 or
 4 7.

1 9. Compositions utilizing the structures as described in claims 1, 2, 3, 4, 5, 6 or 7
 2 either alone or in combination that can be packaged and stored for extended
 3 period (i.e., greater than one month) in a dry powdered form for reconstitution
 4 with water or other suitable solvent at the site of application or use. The peroxide
 5 source may be part of the dry mixture or added later at the time of product usage.
 6 Other ingredients such as buffers, sequestering agents, and surfactants may be
 7 added to improve the antimicrobial efficacy of the formulation.